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IN THE CLAIMS:

Please amend the claims as follows:

Claims 1 and 2 (Cancelled)

Claim 3. (Currently Amended) The method of claim ~~2~~5, wherein the first output signal has a voltage level of 7 volts and a voltage level of 5 volts and the second output signal is 5 volts.

Claim 4 (Cancelled)

Claim 5. (Currently Amended) A method of providing multiple voltage outputs, comprising:

receiving an input signal from a multifunctional pump configured to provide more than two voltage levels, the multifunctional pump comprising:

clock drivers including a first clock driver, a second clock driver, a third clock driver, a fourth clock driver and a fifth clock driver; and

arrays including a first array, a second array, a third array, a fourth array and a fifth array, each array configured to receive input from one corresponding clock driver, each array and corresponding clock driver being in a parallel circuit to the other arrays and corresponding clock drivers, each array comprising a circuit array configured to form a voltage pump, the input signal comprising an array output signal from at least one array;

sending a first output signal based on the input signal using a first switch;

sending the input signal to a transistor;

sending a second output signal received from the transistor via a second switch; and

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comparing a reference voltage and a feedback voltage, received from the transistor, using a first comparator to provide a comparator result, the first comparator being coupled to a gate of the transistor to control the transistor based on the comparator result.

~~The method of claim 1, wherein the multifunctional pump is a circuit comprises:~~

~~a first array receiving input from a first clock driver;~~

~~a second array receiving input from a second clock driver, the second clock driver and the second array being in parallel to the first array and the first clock driver;~~

~~a third array receiving input from a third clock driver, the third clock driver and the third array being in parallel to the second array and the second clock driver;~~

~~a fourth array receiving input from a fourth clock driver, the fourth clock driver and the fourth array being in parallel to the third array and the third clock driver; and~~

~~a fifth array receiving input from a fifth clock driver, the fifth clock driver and the fifth array being in parallel to the fourth array and the fourth clock driver;~~

~~wherein each array is a circuit array configured to form a voltage pump.~~

Claim 6. (Previously Amended) The method of claim 5, wherein the multifunctional pump further comprises:

an oscillator providing a clock signal to each of the clock drivers; and

a second comparator providing input to the oscillator, the second comparator comparing the output from the arrays with a predetermined voltage.

Claim 7. (Previously Amended) The method of claim 6, further comprising:

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placing the multifunctional pump in a standby mode when the first clock driver is enabled

by a first signal.

Claim 8. (Previously Amended) The method of claim 6, further comprising:

placing the multifunctional pump in a read mode when the second clock driver is enabled

by a second signal and the first array is on.

Claim 9. (Previously Amended) The method of claim 6, further comprising:

placing the multifunctional pump in a program mode when the third clock driver, the

fourth clock driver, and the fifth clock driver are enabled by a third signal and the first array and

the second array are on.

Claim 10. (Previously Amended) The method of claim 6, further comprising:

placing the multifunctional pump in an erase mode when the third clock driver, the fourth

clock driver, and the fifth clock driver are enabled by a third signal and the first array and the

second array are on.

Claims 11 and 12 (Cancelled)

Claim 13. (Currently Amended) The apparatus of claim ~~12~~15, wherein the first output

signal has a voltage <u>level</u> of 7 volts and a voltage <u>level</u> of 5 volts and the second output signal is

5 volts.

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Claims 14 (Cancelled)

Claim 15. (Currently Amended) An apparatus for providing multiple voltages, comprising:

a multifunctional pump configured to provide more than two voltage levels, the multifunctional pump comprising:

clock drivers including a first clock driver, a second clock driver, a third clock driver, a fourth clock driver and a fifth clock driver; and

arrays including a first array, a second array, a third array, a fourth array and a fifth array, each array configured to receive input from one corresponding clock driver, each array and corresponding clock driver being in a parallel circuit to the other arrays and corresponding clock drivers, each array comprising a circuit array configured to form a voltage pump;

a first switch receiving input from the multifunctional pump and providing a first output signal;

a transistor receiving input from the multifunctional pump;

a first comparator coupled to a gate of the transistor to control the transistor based on a comparator result, the first comparator comparing a reference voltage and a feedback voltage, received from the transistor, to provide the comparator result; and

a second switch, coupled to the transistor, providing a second output signal.

~~The apparatus of claim 11, wherein the multifunctional pump comprises:~~

~~a first array receiving input from a first clock driver;~~

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~~a second array receiving input from a second clock driver, the second clock driver and the~~

~~second array being in parallel to the first array and the first clock driver;~~

~~a third array receiving input from a third clock driver, the third clock driver and the third~~

~~array being in parallel to the second array and the second clock driver;~~

~~a fourth array receiving input from a fourth clock driver, the fourth clock driver and the~~

~~fourth array being in parallel to the third array and the third clock driver; and~~

~~a fifth array receiving input from a fifth clock driver, the fifth clock driver and the fifth~~

~~array being in parallel to the fourth array and the fourth clock driver;~~

~~wherein each array is a circuit array configured to form a voltage pump.~~

Claim 16. (Previously Amended) The apparatus of claim 15, wherein the

multifunctional pump further comprises:

an oscillator providing a clock signal to each of the clock drivers; and

a second comparator providing input to the oscillator, the second comparator comparing

the output from the arrays with a predetermined voltage.

Claim 17. (Previously Amended) The apparatus of claim 16, wherein the

multifunctional pump is in standby mode when the first clock driver is enabled by a first signal.

Claim 18. (Previously Amended) The apparatus of claim 16, wherein the

multifunctional pump is in read mode when the second clock driver is enabled by a second signal

and the first array is on.

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Claim 19. (Previously Amended) The apparatus of claim 16, wherein the multifunctional pump is in a program mode when the third clock driver, the fourth clock driver, and the fifth clock driver are enabled by a third signal and the first array and the second array are on.

Claim 20. (Previously Amended) The apparatus of claim 16, wherein the multifunctional pump is in an erase mode when the third clock driver, the fourth clock driver, and the fifth clock driver are enabled by a third signal and the first array and the second array are on.

Claim 21-25 (Cancelled)